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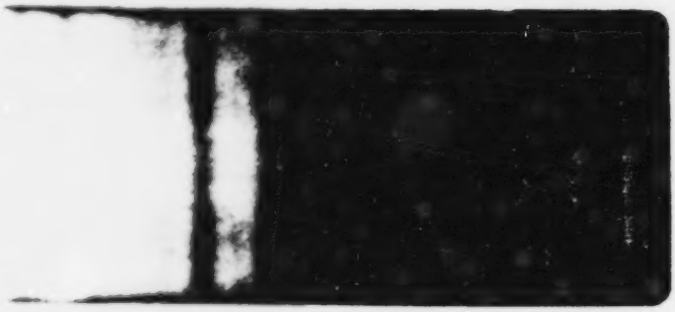

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MANITOBA
MINISTERE DE L'EDUCATION

EXECUTIVE SUMMARY
OF
"FRENCH IMMERSION PROGRAMMES IN MANITOBA: AN EVALUATION OF GRADES 6 AND 9"

Prepared for
Trustees and Senior Administrators
by
John Ilavsky

The conclusions and opinions in this report are those of the principal investigator and do not necessarily reflect the views or policies of the Department of Education.

January, 1984

The research report from which this summary was prepared was undertaken by the Bureau de l'Education française in co-operation with participating school divisions during the 1982/83 school year. The Bureau de l'Education française contracted with Mr. John Ilavsky for the provision of the executive summary.

The Bureau de l'Education française would like to express particular appreciation to the co-operating divisions and their representatives who provided guidance and support during the project. Special thanks are also extended to all other individuals who were involved in the project.

Authorized for Release

by the

Bureau de l'Education française

Department of Education

Guy L. Roy, Assistant Deputy Minister

This report constitutes an "executive summary" of the French immersion research study conducted in the Spring Term of 1983 under the auspices of the Bureau de l'Education française and in cooperation with several school divisions in Manitoba.

A full report on the research study has been provided to the Bureau by CERECO, the research firm contracted to conduct the study. The full report is titled French Immersion Programmes in Manitoba: An Evaluation of Grades 6 and 9 (November, 1983) and is available from the Bureau.

The purpose of this executive summary is to provide a summary of the main report and to review its findings in relation to immersion research conducted in other jurisdictions (mainly Ontario and Quebec).

The expectation is that this report will provide a convenient reference to trustees and senior administrators on several important issues in French immersion education investigated in the 1983 Manitoba study.

PREFACE

In the Fall of 1979, the Bureau de l'Education française of the Manitoba Department of Education, in cooperation with several school divisions, undertook a study of selected aspects of French immersion programs in Manitoba. A private research firm (CERECO) was contracted to conduct the study during the Spring Term of 1980.

The purpose of that study was to collect data on several questions that were posed by the cooperating school divisions. The questions reflected concerns shared by parents and school division officials regarding French immersion education and, in particular, the achievement levels of students in the several alternative French immersion programs that were available in Manitoba.

The main research questions were:

1. Are there significant differences in French language skills development (aural, oral, reading, writing) among the various immersion programs? How do the French language skills of immersion students compare with those of francophone students in Français programs?

2. How do the English language skills (eg. vocabulary and reading comprehension) of French immersion students compare with Canadian norms? Are there significant differences among the immersion programs in English language skill development?

3. How do the Mathematics skills (an academic subject area taught in French) of immersion students compare with Canadian norms? Are there significant differences among the immersion programs in Mathematics achievement of students?

4. Are there major differences among the immersion programs in student and parental attitudes and expectations concerning French immersion education?

It was recognized that data on these questions had been collected in other provinces, particularly in the Ottawa region of Ontario and the Montreal area in Quebec. Given that Manitoba immersion programs differed from the Ontario and Quebec programs in certain characteristics (eg. percentage of instructional time in the French language) and in the social and political setting, the need for data collected in Manitoba was deemed necessary.

The results of the 1980 study were published in a report titled French Immersion Programmes in Manitoba: An Evaluation (April, 1980). An "executive summary", prepared for trustees and senior administrators, was released in May, 1981 under the title Selected Highlights From "French Immersion Programmes in Manitoba: An Evaluation."

The main conclusions drawn from the study were reported as follows (page 14 of the executive summary):

1) French immersion programs have no negative effects on English language or Mathematics achievement.

2) In French language achievement and proficiency, the early total immersion program in an immersion setting produces the best results.

3) By grade VI, under conditions of early, total immersion in an immersion setting, students can achieve a level of proficiency (as measured by the tests used in this research) in French that is not different from that of students whose native language is French and were educated in a Français program.

4) The equivalent performance by grade VI students and the French comparative group mentioned above was no longer observable at the grade IX level. The problem of small numbers, changes in program, and the setting, all make it difficult to generalize this finding.

Several limitations in the 1980 study were noted (especially the small number of classes and students associated with several of the alternative immersion programs in the study) and the need for follow-up studies to provide additional data was cited.

In the Fall of 1982, the first follow-up study was initiated by the Bureau de l'Education française, again in cooperation with several school divisions. As in the 1980 study, the research firm of CERECO was contracted to conduct the study during the Spring term of 1983.

The final report of the researchers on the 1983 study was published in November, 1983 under the title French Immersion Programmes in Manitoba: An Evaluation of Grades 6 and 9.

The Bureau de l'Education française again commissioned the preparation of an "executive summary" for trustees and senior administrators.

DESCRIPTION OF THE 1983 STUDY

The Alternative French Immersion Programs in Manitoba

The popularity of French immersion programs as an alternative educational program for Manitoba students is increasing rapidly as is the number of schools and school divisions offering the program to students. In Manitoba, several alternative types of immersion programs have emerged differing in one or more of the following characteristics:

1. Point of entry to the program.

    * Early immersion: entry at Kindergarten or Grade One.
    * Intermediate immersion: entry at Grade Four
    * Late immersion: entry at Grade Seven.

2. Amount of instructional time in the French language.

    * Partial immersion: between 50-60% of the instructional time is in the French language.
    * Total immersion: between 70 to 80% of the instructional time is in the French language.

3. The setting (or milieu) in which the immersion program is offered.

    * Immersion setting: a school which offers only the French immersion program or a school in which the immersion program is offered in a separate section or wing with its own bilingual administration and staff.
    * Dual Track setting: a school in which the immersion program and the regular English program are offered under one administration (often unilingual English).

In the 1983 study, five different immersion groups were identified at the Grade 6 level and four immersion groups at the Grade 9 level. One immersion group at the Grade 9 level opted not to participate in the 1983 study.

The immersion groups which were identified, the number of classes in each group, and number of students retained for analysis of the various test results are shown in Table 1.

The Research Questions

The alternative immersion programs in Manitoba often reflect differing preferences and beliefs concerning the relative educational benefits of those alternatives. Parents who are considering the placement of their children in a French immersion program frequently seek information and advice about the relative merits of the alternative immersion programs.

TABLE 1

Grades 6 and 9 Immersion Groups, Number of Classes, and Students Retained for Achievement Analysis.

IMMERSION GROUPS	Number of Classes	Students Retained		
		CTBS, Task, Cloze, Aural Tests	Oral Test	Writing Test
Grade 6.				
1. Early Total Immersion: Immersion Setting	9	56	27	27
2. Early Total Immersion: Dual Track Setting	2	28	10	9
3. Intermediate (Grade 4) Total Immersion: Immersion Setting	1	15	16	16
4. Intermediate (Grade 4) Total Immersion: Dual Track Setting	3	54	25	25
5. Early Partial Immersion: Immersion Setting	1	18	17	17
Grade 9.				
1. Partial Immersion: Dual Track Setting-- previously in Early Total Immersion (K-6)	1	26	20	19
2. Late (Grade 7) Total Immersion: Dual Track Setting	2	29	25	24
3. Late (Grade 7) Partial Immersion: Dual Track Setting	6	47	19	17
4. Total Immersion: Immersion Setting (did not participate in study)	n/a	n/a	n/a	n/a

Consequently, the principal research questions posed in the 1983 study reflected what participating school divisions identified as the major concerns faced by school officials. These questions were similar to those examined in the 1980 study, namely:

1. Are there significant differences in French language skills development (aural, oral, reading, writing) among the various immersion programs? How do the French language skills of immersion students compare with those of francophone students in Français programs?

2. How do the English language skills (eg. vocabulary and reading comprehension) of French immersion students compare with Canadian norms? Are there significant differences among the immersion programs in English language skill development?

3. How do the Mathematics skills (an academic subject area taught in French) of immersion students compare with Canadian norms? Are there significant differences among the immersion programs in Mathematics achievement of students?

4. Are there major differences among the immersion programs in student and parental attitudes and expectations concerning French immersion education?

The Research Instruments

Since the 1983 study was a follow-up to the 1980 study, the same tests were used to collect data on English language, Mathematics and French language achievement (with the exception of the Test de Français du Manitoba which was not used in the 1983 study).

English Language and Mathematics achievement were assessed using standardized tests frequently used in Manitoba schools. At Grade 6, the Canadian Test of Basics Skills was used (Reading Comprehension, Vocabulary, Mathematics Problem Solving and Mathematics Concepts); at Grade 9, the Stanford TASK Level 1 test was used (English and Mathematics subtests).

French Language skills were assessed using four tests:

General French language proficiency was assessed by means of the Cloze Test developed by the Protestant School Board of Greater Montreal. (PSBGM)

Data on Aural Comprehension were collected using an aural Comprehension Test developed by PSBGM and modified for Manitoba by CERECO. It consisted of tape recorded passages played to students who then responded to short questions (comprehension) about each passage.

Writing skills were assessed by means of pictorial strips used to stimulate a written response (describe the story suggested by the pictures). Each writing sample was scored by two independent judges (native tongue French) on four writing skills--spelling, grammar and syntax, vocabulary and communication.

Oral production data were collected in two ways. 1) The researchers conduct individual oral interviews with students, asking questions about school, hobbies, sports, camping, etc. 2) Each student was presented with a pictorial strip and asked to relate (narrate) a story depicted by the strip. Both components were tape recorded and the recorded oral sample was scored by two judges on five dimensions: comprehension, pronunciation, grammar and syntax, vocabulary, and communication.

The scoring protocols used by the judges for the French writing and oral production tests appear in Appendix A.

As in the 1980 study, data were collected on intelligence (IQ) and socio-economic status (SES) of students in the French immersion programs. These data were used in the statistical analysis of differences in achievement among the immersion groups (analysis of covariance) in an attempt to control for possible differences among groups in the two variables which are known to be associated with school achievement. Data on IQ and SES were not made public in the study.

Data on IQ were collected by means of the non-verbal "Reasoning" test developed by Jean Courval.

Socio-economic status was determined by analysis of data collected from parent questionnaires. The data collection and analysis were patterned after techniques developed by Canadian sociologists for this purpose.

The questionnaires used in the 1980 study to collect data about the perceptions and attitudes of immersion students, parents, and educators were modified (abbreviated) for the 1983 study.

The Research Population

The target population for the 1983 study was all Grade 6 and Grade 9 students in immersion programs in Manitoba. However, some schools did not participate fully in the study. Consequently, a total of 16 classes in five different immersion programs at Grade 6 and 9 classes in three different immersion programs at Grade 9 were retained for the study.

A control group of approximately 100 francophone students in the Français program in Manitoba was randomly selected at each of the two grade levels to generate norms for the French language tests.

The CTBS, TASK, Cloze, and Aural Comprehension tests were administered to all students in the groups retained for the study with the following exceptions:

1. The Français students did not write the CTBS and TASK tests.
2. Because the Early Total Immersion: Immersion Setting group at Grade 6 (9 classes) and the Late Partial Immersion group at Grade 9 (6 classes) were much larger than the other immersion groups, a random sample of about 50 students were selected from these groups to generate the test data cited above.

With respect to the Oral Production and Writing Skills tests, random samples of students were used for the larger groups and all students were retained, where possible, for the very small groups.

The distribution of classes retained for the study among the various immersion groups and the number of students retained for the analysis of achievement data have been previously reported in Table 1 of this report.

It should be noted that, for each immersion group in the study, students were retained for analysis of achievement only if they had been in that particular immersion program for the past three years. A similar condition was applied to the Français control group.

The parent questionnaires were distributed to all parents who had children in French immersion programs at Grade 6 and Grade 9. Separate questionnaires for teachers and for school administrators directly involved with the delivery of French immersion programs were distributed to all teachers who teach immersion programs in Manitoba and to all principals and vice-principals of schools offering an immersion program.

The number of parent questionnaires retained for the study was 284. The number of teacher questionnaires retained for the study was 253, and the number of principals and vice-principals returning the questionnaire was 41.

Limitations of the Research

The main limitations of the study, as noted by the researchers in their report, were:

1. The small number of students (frequently only one class) that were enrolled in several of the alternative immersion programs at grades 6 and 9 requires that caution be exercised in attributing differences in achievement solely to program effects.

2. The decision by one Grade 9 group to not participate in the study resulted in the absence of data about an important alternative French immersion program.

3. The composition of French immersion groups is likely sensitive to motivational and other influences which may result in those groups being highly selective groups, particularly in the case of the Intermediate (Grade 4) and Late (Grade 7) immersion groups where the "best" students may be encouraged to switch to the immersion program.

The researchers note that techniques were employed "to correct the data for the limitations of the project either by statistical analysis or in the interpretation of the results."

Results of the 1983 Research

This section provides a summary of the data and findings as reported in the main report.

The results of the analysis of achievement data are presented in Table 2 (Grade 6) and Table 3 (Grade 9). A legend for interpreting each table and an illustration are provided under each table.

The principal findings for the achievement data are:

1. At both grade levels, achievement of French immersion students on English language and Mathematics skills is either at or above the norms of the standardized tests used in the study.

2. Generally, at both Grade 6 and Grade 9, there are no statistically significant differences between immersion groups in English language and Mathematics achievement.

3. The French language skills of immersion students are generally below those of francophone students in the Français program with the gap in performance smaller at Grade 9. The best French language achievement, compared to francophone norms, was recorded by the Grade 9 students who had taken total early immersion at the elementary level and subsequently were placed in a partial immersion program in a dual track school for their junior high education. On six of the eleven French skills scores, the achievement of this group was not statistically different from that of the Français control group.

4. At the Grade 6 level, the first three immersion groups listed in Table 2 achieve similar scores on the French language tests and generally outperform the fourth and fifth immersion groups listed in the table.

5. At the Grade 9 level, the order of the three French immersion groups in the table reflects their relative achievement in French language skills with the first group attaining the highest level of skills and the third group the lowest level of skills.

Table 2

Average Scores on Achievement Tests: Grade 6

	C.T.B.S.						Oral Production Test (French)					Writing Skills Test (French)				
	Vocabulary	Reading Comprehension	Mathematics: Problem-Solving	Mathematics Concepts	Cloze Test (French)	Aural Comprehension Test (French)	Comprehension	Pronunciation	Grammar and Syntax	Vocabulary	Communication	Spelling	Grammar and Syntax	Vocabulary	Communication	Aggregate Score on French Tests
Maximum Possible Score	100	100	100	100	25	25	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	42
Early Total Immersion - Immersion Setting 9 classes	65.30 ● n=56	64.41 ●	71.61 ●	65.71 ●	9.14 ○ n=56	11.80 ○ n=56	4.66 ○ n=27	3.90 ○	3.24 ○	3.22 ○	4.99	3.06 ○ n=27	2.87 ○	3.69 ○	4.13 ○	54.70 (66.0)
Early Total Immersion - Dual-Track Setting 2 classes	76.75 ● n=28	61.18	65.00	59.32	7.43 ○ n=28	11.71 ○ n=28	4.35 ○ n=10	3.70 ○	3.20 ○	3.20 ○	4.90	3.45 ○ n=9	3.17 ○	3.84 ○	4.32 ○	53.21
Intermediate (Gr. 4) Total Immersion - Immersion Setting 1 class	62.53 n=15	58.53	64.74	59.53	8.47 ○ n=15	11.46 ○ n=15	4.68 n=16	3.95 ○	3.22 ○	3.34 ○	5.00	3.25 n=16	2.94 ○	3.35 ○	3.78 ○	53.37
Intermediate (Gr. 4) Total Immersion - Dual Track Setting 3 classes	66.38 ● n=54	58.13	60.80 ●	53.29	4.67 ○ n=54	9.38 ○ n=54	4.16 ○ n=25	4.18 ○	2.62 ○	2.52 ○	4.58 ○	2.84 ○ n=25	2.60 ○	2.90 ○	3.10 ○	43.67
Early Partial Immersion - Immersion Setting 1 class	57.38 n=18	42.83	48.50	38.72	4.45 ○ n=18	8.94 ○ n=18	4.41 ○ n=17	3.55 ○	2.88 ○	2.76 ○	4.89	2.86 ○ n=17	2.80 ○	3.50 ○	3.68 ○	42.21 (43.5)
NORMS Canadian (C) Francais (F)	50.0 C	50.0 C	50.0 C	50.0 C	11.50 F	13.21 F	4.98 F	4.90 F	4.55 F	4.45 F	5.00 F	3.70 F	3.72 F	4.24 F	5.00 F	65.25 (66.4)

Interpretation of Table 2

1. The top entry in each cell is the average score of the immersion group on the test. For C.T.B.S., the scores are the average percentile rank of the group; for the French skills tests, the scores are the average raw scores.
2. The number of students writing each test is designated by "n".
3. Statistically significant differences between average scores are shown using the following codes:
   ● - significantly higher score
   ○ - significantly lower score
   no entry (blank) indicates no significant difference
4. The central portion of each cell is used to indicate whether the average score of the group is higher than the norm (shown in the bottom row of the table).
5. The five small cells in each large cell indicate statistical comparisons between the average scores of the immersion groups.
6. Tests of statistical differences between the immersion groups were conducted on scores adjusted for IQ and SES.
7. A .05 level of significance was selected.
8. The scores in parentheses in the last column of the table are the 1980 scores of the respective groups.

	C.T.B.S.				
	Vocabulary	Reading Comprehension	Mathematics: Problem-Solving	Mathematics Concepts	Cloze Test (French)
Maximum Possible Score	100	100	100	100	25
Early Total Immersion - Immersion Setting 9 classes	65.30 ● n=56	64.41 ●	71.61 ●	65.71 ●	9.14 ○ n=56

ILLUSTRATION

Average score of Cloze Test for the group was 9.14

The average score of the group was below the Français norm (11.50) shown in the bottom row of the table.

This group's score was significantly higher than the scores of groups 4 and 5 but not different from the scores of groups 2 and 3.

Table 3

Average Scores on Achievement Tests: Grade 9

	TASK		Cloze Test (French)	Aural Comprehension Test (French)	Oral Production Test (French)					Writing Skills Test (Fr)				Aggregate Score on French Test
	English	Mathematics			Comprehension	Pronunciation	Grammar and Syntax	Vocabulary	Communication	Spelling	Grammar and Syntax	Vocabulary	Communication	
Maximum Score Possible	100	100	31	23	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	99
Partial Immersion in a Dual Track Setting - previously in Early Total Immersion 1 class	58.34 n=26 →	65.31 ●	13.46 n=26	15.27 n=26	4.85 n=20 →	4.17 O	3.70 O	3.83 O	4.99	3.53 O n=19 →	3.21 O	3.79	4.13	64.93 (60.15)
Late (Gr. 7) Total Immersion in a Dual Track Setting 2 classes	81.00 ● n=29 →	76.37 ●	11.36 O n=29	14.62 O n=29	4.54 O n=25 →	3.32 O	3.04 O	2.90 O	4.90	3.71 n=24 →	3.00 O	3.65 O	4.12	59.13
Late (Gr. 7) Partial Immersion in a Dual Track Setting 6 classes	67.06 ● n=47 →	68.81 ●	10.73 O n=47	12.06 O n=47	4.24 O n=19 →	3.23 O	2.74 O	2.71 O	4.79	3.12 O n=17 →	2.59 O	3.06 O	3.67 O	52.94 (53.5)
NORMS Canadian (C)	50.0	50.0	13.91	17.11	5.00	4.82	4.39	4.29	4.99	4.14	3.95	4.19	4.13	71.22
NORMS Francais (F)	C	C	F	F	F	F	F	F	F	F	F	F	F	72.71

Interpretation of Table 3

1. The top entry in each cell is the average score of the immersion group on the test. For C.T.B.S., the scores are the average percentile rank of the group; for the French skills tests, the scores are the average raw scores.
2. The number of students writing each test is designated by "n".
3. Statistically significant differences between average scores are shown using the following codes:
   ● - significantly higher score
   O - significantly lower score
   no entry (blank) indicates no significant difference
4. The central portion of each cell is used to indicate whether the average score of the group is higher than the norm (shown in the bottom row of the table).
5. The five small cells in each large cell indicate statistical comparisons between the average scores of the immersion groups.
6. Tests of statistical differences between the immersion groups were conducted on scores adjusted for IQ and SES.
7. A .05 level of significance was selected.
8. The scores in parentheses in the last column of the table are the 1980 scores of the respective groups.

	TASK		Cloze Test (French)	Aural Comprehension Test (French)
	English	Mathematics		
Maximum Score Possible	100	100	31	23
Partial Immersion in a Dual Track Setting - previously in Early Total Immersion 1 class	58.34 n=26 →	65.31 ●	13.46 n=26	15.27 n=26

ILLUSTRATION

Average score of this group on Aural Comprehension test was 15.27.

This score was not significantly different from the Français norm (17.11) found in the bottom row of the table.

This group scored significantly higher than group 3 but was not significantly different from group 2.

The principal findings from the data collected on the student, parent, teacher, and administrator questionnaires (concerning perceptions and attitudes regarding French immersion education) follow:

1. French immersion students generally reported that they hardly ever use their French language skills outside of the school setting. This was corroborated from the parent questionnaires.

2. While a high percentage of students in immersion programs at the two grade levels reported a desire to continue their immersion education (ranging from 61% to 86% at Grade 6 and from 29% to 93% at Grade 9), those groups expressing the least interest in continuing French immersion education were in the partial immersion program at Grade 6 (Group 5, Table 2) and the late partial immersion program at Grade 9 (Group 3 in Table 3).

3. Well over 95% of the parents with children in an immersion program at Grade 6 expressed a desire that their children continue their immersion education at least to the end of Grade 9. A high proportion of these parents (about 75%) indicated a desire that their children continue their immersion education to the end of Grade 12.

   For the parents of immersion students at Grade 9, most wanted their children to continue their immersion education through Grade 12 (over 75%).

4. Parents generally expressed a high degree of satisfaction with the immersion program. (On a five point scale, the average scores for parents in the various programs ranged from 3.9 to 4.9). Principals' perceptions of parental satisfaction support this finding.

5. The percentage of immersion teachers reporting that their education and professional training was in French was higher for teachers in immersion settings than for teachers in dual track settings. This was particularly evident with respect to their University education.

6. With respect to their professional training, less than 25% of the immersion teachers reported that they received training in the teaching of English Language Arts in the French Immersion program and fewer than one-third of the immersion teachers reported that they received training in the teaching of French Language Arts in the French Immersion program.

7. Immersion teachers in an immersion setting report a higher frequency of use of French language and French materials in the school setting than do immersion teachers in a dual track setting. A similar higher frequency is reported regarding teachers' perceptions of the amount of use of the French language by students in the school setting. These perceptions are shared by principals.

8. Immersion teachers, regardless of the setting in which they teach, overwhelmingly report (from 91% to 97%) that they believe the immersion setting is the most effective in achieving the goals of the immersion program. This view is also held by principals in an immersion setting but less so (55%) by principals of a dual track school.

9. Principals in immersion settings report a higher level of speaking ability in French than do principals in dual track settings.

Conclusions in the 1983 Study

1. The results of the 1983 study are generally in agreement with those of the 1980 Manitoba study (see page 2 of this report) and with findings reported in Quebec and Ontario.

2. French immersion programs have no negative effects on English language and Mathematics achievement. French immersion groups obtained average to above-average results when compared to national norms.

3. Although French immersion students have not attained the level of proficiency in French that is observed among Français students whose mother tongue is French, the total immersion program in an immersion setting produces the best results.

4. Students in total immersion programs are more motivated to continue in the program.

5. Intermediate and late total immersion programs have produced positive results when compared to early total immersion programs.

The 1983 Manitoba Study in Relation to Other Immersion Research

The purpose of this section is to provide readers with a brief summary of immersion research findings in other jurisdictions (largely in Ontario and Quebec) that are relevant to the issues investigated in the 1983 Manitoba study. This summary should provide policy makers with the appropriate context within which the Manitoba data may be considered as well as providing information that may be useful for policy decisions.

Several references that will be of interest are:

Cummins, James. Research Findings from French Immersion Programs Across Canada: A Parent's Guide. CPF National Newsletter, Issue No. 23, September, 1983.

Mlacek, Beth and Isabelle, Elaine (eds.). So You Want Your Children to Learn French! A Handbook for Parents. Ottawa: Canadian Parents for French, Ontario, 1979.

Swain, Merrill and Lapkin, Sharon. Bilingual Education in Ontario: A Decade of Research. Toronto: Ministry of Education, Ontario, 1981.

It should be noted that much of the reported research conducted at the upper grades (such as grades 6 and 9) involves groups of students who were among the earliest participants in French immersion programs in their school districts. Consequently, motivational and attitudnal factors may play a major role in accounting for the high achievement levels of these students.

With the rapid rise in the popularity of French immersion programs, both the numbers of students and their proportion of the total student population are increasing. This will provide future researchers with an immersion population that will not only be larger but will likely be more similar to the English program population on many characteristics that are known to influence school achievement.

It is arguable that the current use of IQ and SES as covariates to control for these achievement related variables may not fully control for such differences among immersion groups and between immersion students and regular English program students.

Finally, while research findings across several school districts may point in the same direction, the number of classes and students in immersion in each district may be small. In such cases, it is difficult to ascertain whether consistent differences in achievement are due to program or classroom teacher characteristics.

Given the above cautions, the following represents a summary of immersion research findings relevant to the Manitoba study.

1. Early vs Late Immersion

The general conclusion that can be drawn concerning this issue is that, as long as French immersion students continue in an intensive French language program (50% or more of the instructional time in French), the total accumulated hours of French language instruction is positively related to French language achievement.

In other words, students who begin early total immersion and continue into junior and senior high grades in a highly intensive French immersion program will outperform late total immersion students in French language skills.

This general conclusion does not deny the obvious success of late total immersion programs in the development of French language skills.

The grades 6 and 9 data from the 1983 Manitoba study support both the general conclusion and the success of the late immersion program. A notable exception is the very strong French language performance at Grade 6 of the one class of intermediate total immersion students in an immersion setting.

2. Partial vs Total Immersion

Immersion research generally supports the conclusion that students in total immersion programs outperform students in partial immersion programs in French language skills. Furthermore, the English language skills of total immersion students appear to be equal to or better than those of their partial immersion peers.

The 1983 Manitoba data are consistent with the above findings.

3. Immersion Setting vs Dual Track Setting

Recent immersion research on the effect of setting on French language skills development indicates that the immersion setting is superior to the dual track setting. The immersion setting does not appear to result in lower achievement in other areas (such as English language skills) nor does it appear to negatively affect students' identity with their anglophone culture.

The 1983 Manitoba data support the above finding with respect to English language development but only partially support the finding that the immersion setting is superior to the dual track setting for French language skills development.

4. English Language Skills

Research consistently reports that, following several years in an intensive French immersion program, the English language skills of immersion students are equal or superior to those of students in the regular English program. This finding persists when IQ and SES are employed in the statistical analysis to correct for possible differences on these dimensions between immersion and English program students. Furthermore, those students in the more intensive French immersion program are not detrimentally affected in their English skills development. The 1983 Manitoba data are in agreement with the above.

5. Mathematics Achievement

As in the English language skills, the Mathematics achievement of immersion students is equal or superior to that of English program students.

The 1983 Manitoba data are consistent with this finding.

6. Preference of Teachers for the Immersion Setting

Research on teachers' perceptions about the efficacy of the immersion setting compared to the dual track setting reveals that immersion teachers generally believe the immersion setting is superior and express a strong preference for that teaching environment.

This is supported by the Manitoba data.

To sum up, if policy makers wish to provide the immersion program that is most effective in the French language development of students without any apparent detrimental effects on their English language and Mathematics skills development, the alternative to offer is the early total immersion program in an immersion setting.

Effective alternatives to the above are the early total immersion program in a dual track setting and late (Grade 4 or Grade 7) total immersion program in either the immersion or dual track setting.

Partial immersion programs (early or late) are least effective in the development of French language skills.

The implications of the above for policy decisions at the local level will undoubtedly be weighed against other, perhaps equally important, considerations.

As a final footnote, this executive summary has not cited research on issues not examined in the 1983 Manitoba study but which may address other concerns that are placed before policy makers. Included in this would be research on the following:

1. General cognitive development appears to be enhanced with early bilingualism.

2. Early immersion programs may be more viable propositions for a larger number of students than late immersion programs.

3. Immersion programs are apparently suitable for most, if not all, children (not just the average or above average student).

4. Early partial immersion students may experience more difficulty than total immersion students in maintaining achievements standards in subjects taught to them in French.

Information on these issues may be found in the references cited previously in this section of the report.

APPENDIX A

SCORING SCALES: ORAL SAMPLES

A) Comprehension during conversation

5 - understands everything

4 - very few repetitions needed for comprehension

3 - several questions have to be repeated

2 - several questions have to be translated

1 - nearly all questions have to be translated

B) Pronunciation and fluency

5 - native-like pronunciation and fluency

4 - a few mispronounced words not affecting meaning

3 - inconsistent pronunciation leading to confusions

2 - serious pronunciation errors affecting communication

1 - pronunciation difficulties prevent communication

0 - sample too small for evaluation

C) Grammar and Syntax

5 - native-like knowledge of grammar and syntax

4 - a few grammatical and syntactic errors

3 - numerous grammatical and syntactic errors leading to ambiguous speech

2 - grammar and syntax insufficient leading to some incomprehensible speech

1 - grammar and syntax so limited that understanding is greatly affected

0 - sample too small to evaluate

D) Vocabulary

5 - vocabulary equivalent to a native speaker of the age group

4 - a few errors: sufficient vocabulary, rarely a borrowing or use of English words

3 - basic vocabulary but sufficient: some use of borrowing and English words

2 - very often the wrong word: many borrowings and English words

1 - insufficient vocabulary for production

0 - sample too small to evaluate

E) Communication

5 - willingness to communicate in French

4 - reticent but will communicate in French

3 - very little desire to communicate in French

2 - no desire to communicate in French

1 - refuses to speak in French

SCORING SCALE: WRITTEN SAMPLES

A) Spelling

5 - no errors
4 - a few errors
3 - many errors: comprehension is not affected
2 - many errors: comprehension is affected
1 - nearly all errors: incomprehensible
0 - sample too small to evaluate

B) Grammar and Syntax

5 - good grammar and syntax
4 - a few errors
3 - many errors: comprehension is not affected
2 - many errors: comprehension is affected
1 - many serious errors: nearly incomprehensible
0 - sample too small to evaluate

C) Vocabulary

5 - excellent vocabulary
4 - sufficient vocabulary: rarely a borrowing or English word
3 - limited but sufficient vocabulary: several borrowings and English words
2 - often the wrong word: many borrowings and English words
1 - insufficient vocabulary: production is affected
0 - sample too small to evaluate

D) Communication: conceptual level

5 - many ideas: text is structured and organized
4 - many ideas: text is uneven
3 - several ideas: repetitions and uneven text
2 - few ideas: uneven and disjointed text
1 - incomprehensible
0 - sample too small to evaluate